

PACIFIC FRUIT EXPRESS COMPANY

June News Letter

San Francisco, June 25, 1956.

ALL P.F.E. EMPLOYEES:

P.F.E. Loadings

|          | 1956            |                 |              | 1955            |                 |              |
|----------|-----------------|-----------------|--------------|-----------------|-----------------|--------------|
|          | <u>PFE Cars</u> | <u>Foreigns</u> | <u>Total</u> | <u>PFE Cars</u> | <u>Foreigns</u> | <u>Total</u> |
| May      | 28,080          | 2,709           | 30,789       | 26,127          | 2,189           | 28,316       |
| Jan.-May | 140,786         | 8,610           | 149,396      | 127,929         | 7,517           | 135,446      |

Car Situation -

The car situation is satisfactory and diversions of foreign cars from PFE service are being regulated to allow full usage of PFE cars and at same time assure protection of continued heavy loading in prospect in all territories.

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CROP CONDITIONS

Along Union Pacific -

The Idaho potato movement is concluded and nominal daily shipments of other commodities consisting of pears, frozen foods and miscellaneous will continue until tree fruits are ready to move later in the month. Sub-zero weather experienced last November caused some damage to cherry, peach and young apple trees. Another frost around mid-May hurt some apples just finished blooming.

In Northwestern District with the apple storage about cleaned up, shipments are principally beer, frozen foods and canned goods. Frozen pea loadings from the new crop are underway and will be in heavy volume latter part of June and July. Cherry shipments this year will be light.

In Eastern District Nebraska and Colorado potato movements are finished. Loadings through June will consist of meat, butter, eggs and miscellaneous from Missouri River points.

Along Southern Pacific -

In Oregon loading consists mostly of frozen foods and miscellaneous commodities.

In Northern California the Bakersfield potato movement reached its peak the end of May and continued in heavy volume through



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|             |         | 28,316      | 135,446 |
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the first two weeks of June then declined rapidly. With most eastern "home-grown" crops late, the demand for the plentiful supplies of Salinas lettuce is expected to be heavy during June. First shipments of plums and apricots were made June 1st and movement is expected to maintain good volume during the month. Movement of early peaches should start the last week of June. Tomatoes from the Stockton district are also expected to start the last week of the month.

In the Southwestern District hot weather advanced maturity of melon crop in the desert Valleys. Imperial reached its peak June 4th, followed by Yuma on June 15th. Shipments should decline gradually the balance of the month from these sections. Movement from Phoenix should start mid-June and increase rapidly through the first part of July. Citrus movement will continue in heavy volume.

In Texas adverse weather conditions caused extensive damage to melon crops and shipments were much lighter than originally expected. Tomato crops were only slightly damaged and shipments should be close to normal.

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S A F E T Y      F I R S T

"Be Safe - It's Sound!" proved to be a valuable safety slogan during May, and as a result the month was free of personal injuries. This is a real accomplishment and proves that accidents and injuries don't have to happen. Our safety program has brought commendable results, and it is my fond wish that SAFETY will continue to be of first importance in the discharge of duty.

K. V. PLUMMER

Attachment



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MECHANICAL REFRIGERATOR CARS - WHY THEY ARE BEING BUILT  
AND THE PART BEING PLAYED BY P.F.E. IN THE RELATIVELY NEW  
FIELD INVOLVING MECHANICAL REFRIGERATION OF FOODSTUFFS IN-  
TRANSIT.

The nation's consumption of frozen foods continually demands modern refrigerated transportation facilities and in turn this specialized form of transportation calls for unceasing research and technical knowledge to produce refrigerator cars equipped to assure safe transportation of those perishable commodities.

The mechanical refrigerator car resembles the conventional ice bunker car in outward appearance but in the design it was necessary to hold moisture migration as well as heat transmission to a minimum. This was accomplished by vapor barriers, improved insulation, mastic coatings, and other car construction features.

The first Pacific Fruit Express Co. mechanically equipped car, PFE 300001, was released from our Roseville, Calif. shop for service on May 1, 1953. It has now completed 44 trips, or 1.2 trips per month, accumulating 11,517 engine hours as of June 1, 1956, equivalent to approximately 345,510 miles in an automobile with the engine running at approximately 30 miles per hour. In a further comparison, this performance of the refrigeration unit represents nearly 1,030 operating hours per failure in transit.

As of June 1st, 473 P.F.E. mechanically equipped refrigerator cars were in service and on that date 39 additional ice bunker supers were in the process of conversion to mechanical cars at our Roseville shops. Orders for 200 more cars have been placed, to be constructed early in 1957, and this will bring the total number of mechanical refrigerator cars in our service to 712. While this is quite a few mechanicals, they represent but 2% of our entire fleet.

In an effort to keep abreast of the latest developments in Diesel power, it becomes necessary to test various types of Diesel engines in cars to ascertain the merits of the designs in our own equipment and service. A Witte Model 100 engine was therefore installed in PFE 300290 in March of this year. This is a 4-cycle 2-cylinder horizontal opposed engine rated at 18 HP at 1800 RPM, compared to the 2-cycle 2-cylinder vertical in-line Detroit Diesel engine rated at 34 HP at 1200 RPM generally in PFE service. The Witte engine has been in service since March 15 with good results. Of the 200 new mechanical cars to be constructed in 1957 Carrier units will be applied to 100, and of these 25 will be equipped with Witte engines.

The organization handling the design, construction, maintenance of cars, as well as training of personnel, testing mechanical units, and the research program, is under the supervision of the General Superintendent Car Department. Final recommendations for car design and choice of equipment are issued from his office.

The Assistant General Superintendent Car Department assists in evaluating the various proposals made by manufacturers of car construction materials as well as refrigeration equipment for rolling stock and in other respects contributes to the supervision and direction of the Car Department.



MECHANICAL REFRIGERATORS FOR CARS - WHY THEY ARE BEING BUILT  
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The Engineer of Car Construction is responsible for the design of the car and, among other things, must use foresight so that in event of damage cars can be repaired with a minimum of expense and delay, and he must also maintain the accessibility of component parts that make up the mechanical unit.

The Engineer of Car Refrigeration, and the Mechanical Refrigeration Engineer represent the Car Department in training programs, testing equipment, analyzing mechanical unit difficulties, suggesting corrections, and issuance of instructions.

The Superintendent Car Department at each shop is responsible for required inspections, maintenance and repairs to mechanical cars and in turn delegates these duties to foremen or lead mechanical refrigeration carmen.

Car Department Outside Light Repair points are under the supervision of foremen-inspectors and at these locations usually one or two carmen are designated as the refrigeration repairmen.

Each mechanical car is given a pre-trip inspection before being loaded, and this is usually performed by Car Department personnel at car shops or cleaning stations.

Mechanical refrigerators are given special 1000 and 5000-hours inspection in an effort to curtail enroute difficulties to a minimum. An extensive preventive maintenance program is in operation which reduces intransit failures, delays and repairs.

Intransit inspections are made at various outside stations to record car temperatures, fuel and oil supply, and condition of the mechanical units. The conscientious and efficient work of inspectors at these points plays an important role in keeping the mechanical cars rolling.

An extensive training program has been in effect since the summer of 1953 and engineers from the Car Department conduct classes in the car shops, at cleaning stations, ice plants and other locations. While these training sessions are held primarily for PFE personnel, invitations are extended to personnel from other railroads and to commercial refrigeration servicemen. Classes are not necessarily confined to locations on lines of the Southern Pacific and Union Pacific, but have been held at any location where benefits would accrue in an endeavor to acquaint repairmen and inspectors at outside locations with the new equipment.

Training sessions are conducted for Clerk-Inspectors to aid them in making intransit inspections; to assist Car Repairmen perform pretrip, 1000 and 5000 hours inspections; trouble-shooting procedures and repairs; to acquaint Car Service representatives with new car design features and enable them to know their product when discussing mechanically refrigerated cars with shippers and consignees; and to aid them in understanding the symptoms of enroute difficulties so that materials can be procured and the proper repairmen called out.



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Attempt is made to hold these educational programs at each location at least twice a year, and more often at locations where the need is indicated after perusal of telegrams indicating difficulties experienced with cars out of a certain location, poor performance records of cars 'pretripped' at certain shops or cleaning stations, or records that indicate continued difficulties experienced after car was repaired at a certain station.

Classroom instructions are conducted with visual aids using photographs, wiring diagrams, charts, cut-away models and slide projectors. The open class discussion procedure is most generally followed which airs out any misunderstanding of instructions or equipment, and oftentimes brings out suggestions from repairmen, agents and inspectors to influence the design or assembly location of equipment for future mechanical refrigerator cars.

Training sessions held in the engine compartment have proved to be an outstanding method of solving the "mysterious functions" of the component parts which make up mechanical refrigeration. The most baffling aspects to most people are the electrical and refrigeration systems. The Diesel power plant is quite simple to understand and, generally, repairmen are familiar with their automobile power plant which is advantageous when working on any internal combustion engine.

Instruction includes identification and function of the equipment. The expendable items such as generator and alternator brushes, contact points and fuses, are explained in detail along with proper procedure for renewal.

Repairmen are shown the process of elimination which drastically curtails time expended in diagnosing difficulties. Refrigerant gauges and electrical instruments are explained and tie in with eliminating each possible source of difficulty step by step. This phase of the training is most essential and fills in the gap until servicemen have sufficient experience to develop methods of their own.

Due to alert handling of repairs and preparation of cars for service, both in the shops and in the field, performance records have improved steadily, which is gratifying as more cars are released for service.

New facilities for general overhaul and repair of mechanical units were completed at Roseville, Calif. in February this year. This shop consists of 3000 square feet of floor space constructed of steel framework, aluminum corrugated roof and siding, and translucent plastic skylights, with approximately 800 feet of service track and 15,000 square feet of asphaltic concrete paving.

Unique features in this shop are the Positive Pressure Injector room which eliminates dust so detrimental to the precision requirements for injector maintenance; the down-draft air system in the paint room forcing fumes downward through the floor; and the heating and ventilating system which uses either outside air or recirculates air in the shop while maintaining inside air pressure greater than outside, thereby preventing dust infiltration.



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4.

At present the shop facilities are used for major repairs to units, but shortly as engine hours warrant, a full scale over-haul program will be inaugurated and two or three Diesel engines a day will be reworked completely, as well as overhaul maintenance of refrigeration and Diesel engine component parts.

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